

## AGC/WSDOT Structures Team Minutes

February 24, 2006

Members in Attendance

Attendees:	Company	Phone	E-mail
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Chris Dean and Vance Aeschleman of Wilder Construction also attended the meeting

The minutes of the January 27<sup>th</sup> meeting were reviewed by the committee and approved with some minor corrections.

### Action Item Updates:

#### File Driving Vibration Monitoring

The issue was tabled until next month because some of the people that were to discuss the matter weren't at the meeting.

**Action Item:** Place on the next meeting agenda

#### Future use of MMFX Reinforcing Steel

Jugesh informed the team that the bridge office is going to start designing bridge decks with both top and bottom mats of steel being epoxy coated.

The MMFX reinforcing steel is corrosion resistant rebar. Currently the MMFX steel is more expensive than the black steel and has a yield of up to 150 ksi. The ASSHTO code allows rebar yield strength of up to 75 ksi. Its use is therefore limited to the deck steel and is not suitable for the substructure. WSDOT will allow substitution of MMFX steel, for the bridge decks only, in lieu of epoxy coated bars without allowing for any reduction in steel area.

Currently Oregon is using the MMFX steel in the coastal areas and also in bridges that are over 1500 feet in elevation.

Oregon is currently using Micro Silica in their deck concrete to get high strengths and to decrease the porosity of the deck.

There was a discussion of the deck cracking that WSDOT is experiencing on some of the decks that have been recently cast.

WSDOT is considering epoxy coating the vertical stirrups that are in prestressed girders. Stirrups can't be partially epoxied as the cost to do this partial epoxy coating is the same as if the bar was completely epoxied.

There was also a brief discussion about field bending of stirrups using a steel pipe to simulate the shop bending radius for the stirrups instead of just using a hicky bar.

**Action Item:** For information purposes. No further action is needed.

### **Environmental Permits in Specials**

Marco and Bob mentioned that the NW and Eastern Regions are currently putting environmental compliance plans into their contract plans. We will keep it on the agenda

**Action Item:** Put this topic on next month's agenda to check on status of bridge implementation.

### **Review Structural Excavation-Updates to Section 2-09**

Page 1 of the std. spec. under inspection of embankment, is it necessary to have haul incidental to structure excavation?

Page 4 203-b the ticket information is repeated in other areas of the specification so this is redundant.

Page 5 backfilling of abutments, can be done early if it's done equally on both sides, also lean concrete is allowed, why not also allow CDF.

The next meeting we will talk about ADSC soldier pile backfill, whether to use lean concrete or CDF.

Page 6, not sure what the payment specification for over excavation is trying to say. Page 7 is the ASSHTO Std. ref. 1996 the most current specification?

Page 8 soldier piles, backfilling with pea gravel or sand is not allowed.

Structural shoring around footings the structural zone is half the width of the footing and then down on a 1 ½ to 1 slope.

Page 9, excavate 3 feet beyond lagging during installation, also to design cofferdams to resist 3 feet of excavation.

Page 11, what are the lower limits of over excavation.

**Action Item:** These comments will be forwarded to the Roadway team for their use as section 2 of the std. specifications falls in the Roadway team's area of responsibility.

### **Post Tensioned Bridge Construction**

There was a general discussion about if any of the contractors had a concern with the post tensioning details for web walls on box girders. Also, if the 1" clearance between the ducts at high and low points in the profile was of any constructability concern. The Contractors present said that the clearance between the ducts would be a concern if large size aggregates were used in the mix. They suggested that, in order to fully guard against any future problems, perhaps limiting the aggregate size in the Specifications would be advisable. They weren't aware of any problems other than care had to be taken in placing concrete in these areas.

**Action Item:** No further discussions is needed

### **Falsework Clearances Over Highways**

WSDOT is going to require 16 ½ minimum falsework vertical clearance over highways where ever possible. Widening of existing bridges may be an exception to this requirement. The regions will have to request a deviation to this minimum clearance requirement.

**Action Item:** for information only. No further action needed.

### **Temporary Shoring Walls**

There was a discussion about changed conditions on these walls and how to prevent the changed conditions. The summary of geotechnical conditions is available in the plans. Most contractors thought we provided enough geotechnical information in the plans to bid and build our temporary shoring walls. A few recommendations were:

- Detailed geotechnical investigation
- Identify potential barriers to construction in the summary of geotechnical report
- Avoid too broad of reporting covering full spectrum of soil conditions
- Identify possible options for wall construction

Our next meeting is **March 24<sup>th</sup> at 9:00 am at Corson.**